

Special Issue

The Application of Statistics in Computational Finance

Message from the Guest Editors

Uncertainty, chaos and complexity are hallmarks of financial markets everywhere. Over the past 70 years, methods from both statistics and statistical physics have proven invaluable in analyzing, describing and forecasting financial market trends to make sense of uncertainty. The intersection of statistics, operations research and machine learning has provided numerous advances in portfolio optimization and selection, as well as predictive power. The purpose of this Special Issue is to collate articles that reflect the importance of statistics and statistical physics in economics, econometrics and finance. Both theoretical and experimental papers that showcase and advance the use of statistics to compute quantities of interest such as volatility forecasts, descriptive statistics, portfolio weights, and so on, are welcome, both in a univariate or multivariate setting. We would be interested in receiving papers concerning any financial instrument, not limited to equities, fixed income, foreign exchange, options and derivatives, cryptocurrencies.

Guest Editors

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Deadline for manuscript submissions

closed (15 December 2023)



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About the Journal

Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.4 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).